## PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : H04L 29/12, 12/46	A1	(11) International Publication Number: **WO 00/27094**
		(43) International Publication Date: 11 May 2000 (11.05.00)

(21) International Application Number: PCT/CA99/01014

(22) International Filing Date: 29 October 1999 (29.10.99)

(30) Priority Data:
2,252,207   30 October 1998 (30.10.98)   CA

(71) Applicant (for all designated States except US): EICON TECHNOLOGY CORPORATION [CA/CA]; 9800 Cavendish Boulevard, Montreal, Québec H4M 2V9 (CA).

(72) Inventor; and
(75) Inventor/Applicant (for US only): MOINEAU, Gilbert [CA/CA]; 3255, Dalbé–Viau, Lachine, Québec H8T 3N3 (CA).

(74) Agents: ANGLEHART, James et al.; Swabey Ogilvy Renault, Suite 1600, 1981 McGill College Avenue, Montréal, Québec H3A 2Y3 (CA).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: DIGITAL NETWORK MODEM WITH AN INTEGRATED DHCP SERVER
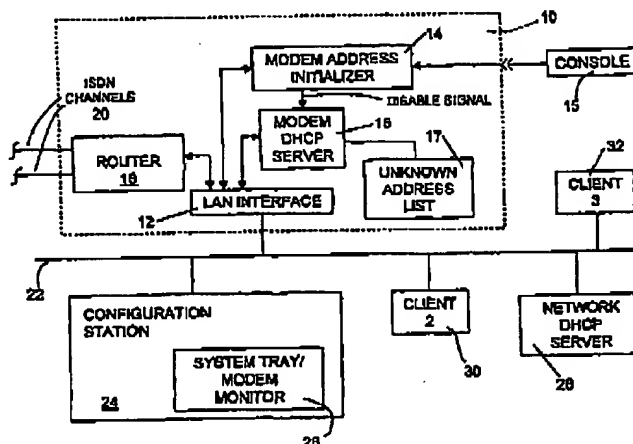
(57) Abstract

The digital network modem has a built–in Dynamic Host Configuration Protocol (DHCP) mechanism for dynamically assigning network addresses to clients on the local network. To prevent confusion with a potentially existing DHCP server on the local network, an autosense mechanism is provided to detect the existence of a DHCP server and disable the internal, built–in DHCP mechanism. At power–on, the modem has no knowledge of clients on the local network, and the addresses in use are checked prior to operation. Addresses in use are placed in a list in a store of unknown addresses, and are not assigned to clients requesting DHCP addresses. When a DHCP client requests an address and has as its current address one of the addresses on the list, the current address is removed from the list. The list of unusable addresses is thus minimized and the same address will not be used for two clients.